# Executive Summary: DICK'S Sporting Goods Scraping Feasibility

## Overview

Target: https://www.dickssportinggoods.com/

Assessment Date: October 8, 2025

Difficulty Rating: 9/10 (HARD)

Recommended Approach: Browser Automation (Mandatory)

## Key Findings

### Protection Assessment

DICK'S Sporting Goods implements enterprise-grade bot protection with Akamai Bot Manager that completely blocks HTTP-based scraping attempts. Even with authentic browser headers extracted from live sessions, HTTP requests achieve a 0% success rate, making browser automation the only viable approach.

### Product Catalog Scale

* \*\*Total Products\*\*: ~179,651 products across extensive categories
* \*\*Product Depth\*\*: Comprehensive sporting goods, apparel, footwear, and outdoor equipment
* \*\*Data Richness\*\*: Complete product specifications, pricing, inventory, and multimedia content
* \*\*Business Value\*\*: High-value competitive intelligence opportunity

### Technical Requirements

* \*\*Browser Automation\*\*: Mandatory - Playwright/Selenium with stealth configurations
* \*\*Proxy Infrastructure\*\*: Residential proxies required (datacenter proxies fail)
* \*\*Success Rate\*\*: 85-95% with proper browser automation and proxy rotation
* \*\*Resource Intensity\*\*: High CPU/memory requirements, 24/7 monitoring needed

## Business Impact Assessment

### Opportunity Value

* \*\*Market Intelligence\*\*: Access to pricing strategies across 179K+ products
* \*\*Competitive Analysis\*\*: Monitor product launches, promotions, and inventory patterns
* \*\*Brand Performance\*\*: Track major sporting goods brands and category trends
* \*\*Revenue Potential\*\*: Significant competitive advantage in sporting goods market

### Investment Requirements

* \*\*Infrastructure\*\*: Enterprise-grade cloud infrastructure with auto-scaling
* \*\*Proxy Services\*\*: Premium residential proxy pools ($3,000-5,000/month)
* \*\*Maintenance\*\*: Dedicated anti-bot specialists and 24/7 monitoring
* \*\*Timeline\*\*: 6-8 weeks for complete implementation and testing

## Risk Analysis

### Technical Risks

* \*\*High Complexity\*\*: Sophisticated multi-layered protection systems
* \*\*Maintenance Overhead\*\*: Continuous adaptation required as protections evolve
* \*\*Success Variability\*\*: Protection updates can temporarily impact operations
* \*\*Resource Intensity\*\*: Significant infrastructure and operational costs

### Operational Risks

* \*\*Legal Considerations\*\*: Must comply with terms of service and rate limiting
* \*\*Detection Risk\*\*: Advanced behavioral analysis and fingerprinting active
* \*\*Scalability Challenges\*\*: Limited by bot protection sophistication
* \*\*Dependency Risk\*\*: Success depends on advanced proxy and automation services

## Strategic Recommendations

### Immediate Actions

1. \*\*Feasibility Confirmation\*\*: Approve high-difficulty, high-investment project
2. \*\*Resource Allocation\*\*: Assign dedicated development team with anti-bot expertise
3. \*\*Infrastructure Planning\*\*: Design cloud-based auto-scaling architecture
4. \*\*Proxy Procurement\*\*: Establish relationships with premium residential proxy providers

### Implementation Strategy

1. \*\*Phase 1\*\*: Proof of concept with 5,000-10,000 high-value products
2. \*\*Phase 2\*\*: Scale to 50,000 products across major categories
3. \*\*Phase 3\*\*: Full catalog coverage with optimized monitoring and maintenance
4. \*\*Monitoring\*\*: Implement real-time success rate tracking and alerting

### Success Metrics

* \*\*Data Completeness\*\*: Target 95% of available product information
* \*\*Success Rate\*\*: Maintain 85%+ successful extraction rate
* \*\*Coverage\*\*: Complete catalog scan every 6-12 days
* \*\*Performance\*\*: 15,000-25,000 products processed daily

## Alternative Considerations

### Partnership Approach

Consider official data partnership discussions with DICK'S Sporting Goods for legitimate business use cases, which may provide more stable access than scraping.

### Selective Scraping

Focus on highest-value categories (Nike, Adidas, premium brands) to maximize ROI while minimizing technical complexity and resource requirements.

### API Investigation

Research potential undocumented APIs or mobile app endpoints that might offer more accessible data sources.

## Financial Projections

### Estimated Monthly Costs

* \*\*Proxy Services\*\*: $3,000-5,000
* \*\*Infrastructure\*\*: $2,000-4,000
* \*\*Maintenance & Monitoring\*\*: $5,000-8,000
* \*\*Total Monthly\*\*: $10,000-17,000

### Return on Investment

* \*\*Data Value\*\*: High competitive intelligence value
* \*\*Market Advantage\*\*: Significant pricing and trend insights
* \*\*Break-even\*\*: 6-12 months depending on business application
* \*\*Long-term Value\*\*: Sustained competitive advantage in sporting goods sector

## Decision Framework

### Proceed If:

* ✅ Budget supports $10K-17K monthly operational costs
* ✅ Team has advanced anti-bot and browser automation expertise
* ✅ Business case justifies high-complexity, high-value data extraction
* ✅ Organization can commit to ongoing maintenance and adaptation

### Consider Alternatives If:

* ❌ Budget constraints limit infrastructure investment
* ❌ Limited technical expertise in advanced bot evasion
* ❌ Preference for lower-risk, lower-maintenance solutions
* ❌ Uncertain about long-term data usage and ROI

## Conclusion

DICK'S Sporting Goods represents a high-reward, high-complexity scraping opportunity. The 179,651-product catalog offers exceptional competitive intelligence value, but success requires significant investment in browser automation infrastructure, residential proxies, and specialized expertise.

Recommendation: Proceed only with full commitment to enterprise-grade implementation, understanding that this is among the most challenging e-commerce scraping targets due to Akamai Bot Manager protection.

Success Probability: 85-90% with proper resources and expertise

Investment Level: High ($120K-200K annually)

Strategic Value: Very High for sporting goods market intelligence